

ADA COUNTY FIVE-YEAR ACTION PLAN for Energy Conservation and Resource Use

September 28, 2011
(Revised annually since 1999)



2010-2011 Partnership Meeting, September 2010

It's our commitment to incorporate "energy efficiency" into the daily operations of Ada County by proactively identifying and implementing methods to improve building efficiency, control utility costs, and conserve natural resources. Ada County demonstrates to employees and the community that its public buildings are operated in a cost-effective manner, saving resources and tax dollars. Management and staff work together to accurately measure energy efficiency and develop a phased approach for efficiency implementation.

Goals and Objectives

The primary goal is to maintain a dynamic five-year plan for identifying cost-effective and economically sustainable energy and resource efficiency priorities for all Ada County facilities. The objectives established by the Energy Plan Partnership benefit all citizens of Ada County. These priorities should meet the needs of County citizens, County Commissioners, Elected Officials, management, maintenance staff, and building occupants.

- Make County facilities as energy and resource efficient as reasonably possible.
- Make County buildings comfortable for staff and citizens.
- Identify building operation and efficiency improvements that require action.
- Incorporate building commissioning efforts into construction projects.
- Control the costs of utilities for long and short term.
- Utilize energy savings for other building and County purposes.
- Educate facility staff about building systems, energy efficient operations, maintenance principles and practices.

- Implement and promote Countywide-recycling projects.
- Protect the environment through the proper disposal of wastes.
- Educate County employees to make good energy and resource decisions.
- Promote and expand the partnership.

Potential barriers to effective program implementation include:

- Identification of strategies that are not supported by the County staff who are key to their successful implementation.
- Appropriation of resources, staff, partners, and dollars, to produce effective and timely implementation of measures.

Organization and Responsibilities

The partnership is supported from the top down beginning with the Board of Ada County Commissioners. Financial support comes through the established County budgetary process. The continuing planning process is designed to bring on-going support from partners and other stakeholders as they are identified.

The Ada County Director of Operations is the lead for the County Partnership. The Director's role is to provide the focus, leadership, staff and monetary resources that will support the development and implementation of a successful program.

The Ada County Energy Specialist is the lead for updating and implementing the County's action plan. Responsibilities also include:

- Maintaining utility management software and databases.
- Tracking utility costs and rate changes for budgeting purposes.
- Recommending operation and maintenance, resource, and efficiency changes.
- Providing measurement and verification reports for retrofit projects.
- Coordinating project and data requirements for LEED certification.
- Submitting applications and support documentation for utility incentives.
- Tracking revenue from green power projects.

The Idaho Office of Energy Resources assists the partnership as follows:

- Provide low- to no-cost operation and maintenance (O&M) options that will increase building efficiencies.
- Assist with building surveys and audits.
- Provide training for building maintenance staff and management.
- Assist the County in obtaining funding and resources for plan implementation.
- Provide financial assistance for building sub-monitoring and building commissioning.

Other program partners include service and business organizations within the community that provide annual input into the plan and its priorities. As members of the Ada County partnership, these organizations may provide program recommendations, planning resources, technical support, and services that are both in-kind or for pay. They are recognized as professional organizations that have an investment in the community.

Current Partners

Ada County	Position
Bob Batista	Director of Recreation and Event Services
Vern Bisterfeldt	Board of Ada County Commissioners
Rick Emerson	Facility Maintenance Superintendent
Troy Hagen	Director of Paramedics
Dolly Hall	Operations, Office Manager
Doug Heikkila	Director of Information Technology
Ted Hutchinson	Director of Solid Waste Management
Bruce Krisko	Operations, Construction Manager
Dave Logan	Director of Operations
Kevin McTeague	Executive Director, FACES
Selena O'Neal	Operations, Energy Specialist
Bob Perkins	Director of Purchasing
Larry Reiner	Trial Court Administrator
John Traylor	Director of Developmnt Svcs and Director of Indigent Svcs
Sharon Ullman	Board of Ada County Commissioners
Brian Wilbur	Director of Weed, Pest, and Mosquito Abatement
Scott Williams	Deputy Director of Operations
Rich Wright	Director of Administrative Services
Rick Yzaguirre	Board of Ada County Commissioners

Business Partners	Company / Organization
Greg Allen	Hummel Architects
Ken Baker	K energy Consultant
Steve Benner	CSHQA
Doug Cooper	McKibben+Cooper Architects
Bruce Cleveland	Idaho Power Company
Byron Defenbach	Intermountain Gas Company
Bill Johnson	City of Boise, Public Works
Geoff Johnson	Eidam & Associates
Kent Johnson	City of Boise, Public Works
Paul Johnson	CH2M Hill
Bill Kissinger	ATS Inland NW
Bryan Lawrence	Fortistar Methane Group
Sherry McKibben	Sustainable Idaho
Kristi Pardue	Idaho Power Company
Bruce Poe	Modus Architecture
Sue Seifert	Idaho Office of Energy Resources
Mark Snider	United Water
Kevin Van Den Wymelenberg	Integrated Design Lab
Scott Wendell	Lombard Conrad Architects
Mike Wisdom	Engineering Inc
Lloyd Mahaffey	Dynamis

Building maintenance and custodial staffs are involved in the development and implementation of planned activities because they are responsible for carrying out the day-to-day operation and maintenance activities, which can produce significant cost savings. Building occupants are important to the program as well, though not specifically listed as a partner. Their behavior, such as turning off unused lights and equipment etc., can reduce building energy use by 10%, a significant contribution to County expenditure reduction.

Ada County Partnership Challenge

The Partnership, which includes service and business organizations within the community, is "**challenged**" to actively participate in the creation and implementation of Ada County's five-year energy conservation and resource use action plan. Partners are specifically recruited and selected to bring their particular expertise and experience to the program. Each partner will be requested or challenged to assist Ada County in determining both short and long range goals and objectives that can be accomplished.

Annual Strategic Plan

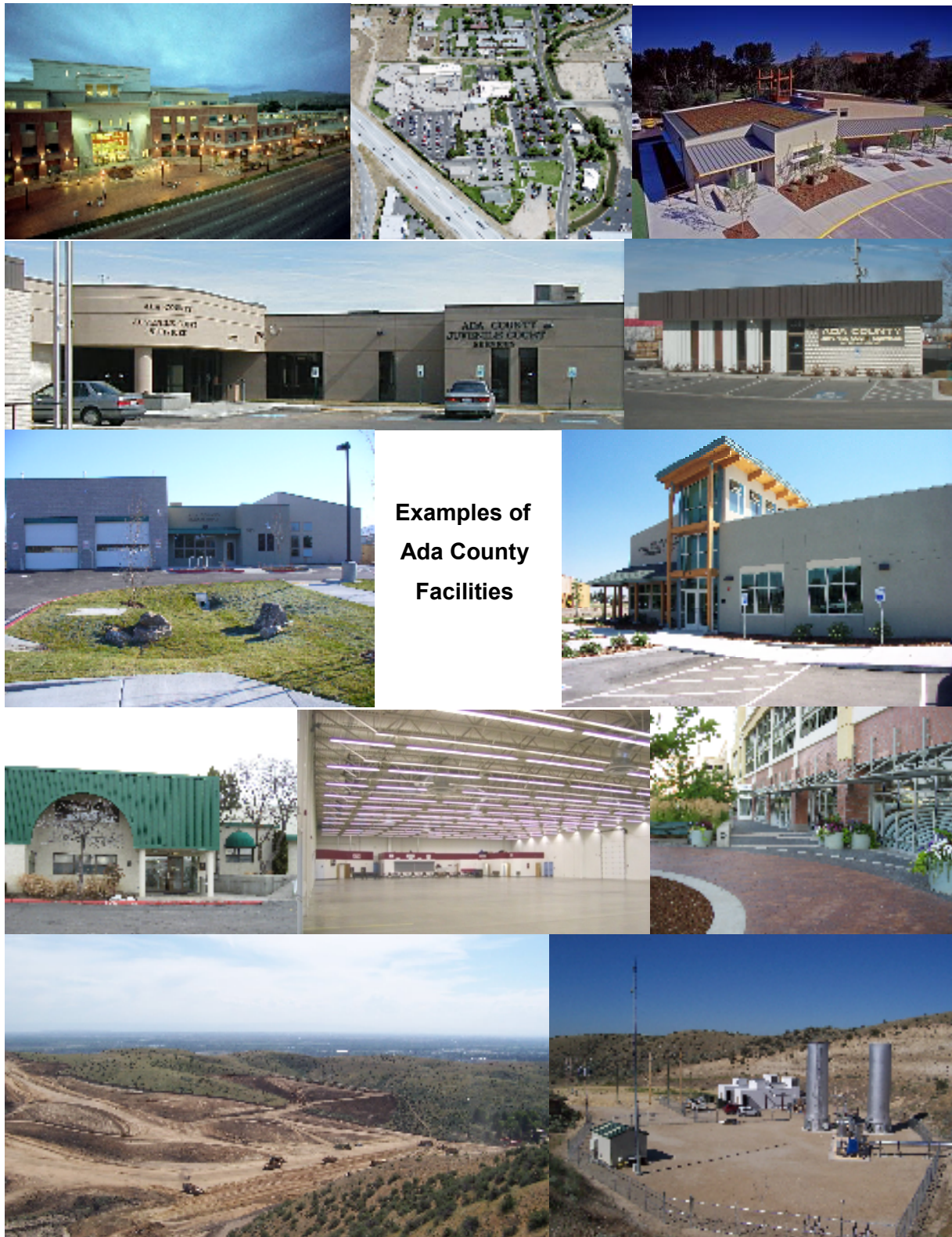
The Partnership produces an annual strategic plan that outlines goals and specific tasks to be accomplished during each fiscal year. This plan is presented to the Board of Ada County Commissioners and Elected Officials at a pre-determined public meeting progress and also updates the partners on the accomplishments and successes of the previous year's plan. The Partners may use portions of the plan or the information contained in it for newsletters and publications to promote the program.

County Facilities

Ada County owns and operates diverse portfolio of buildings to provide a variety of services to the general public, along with office space for its employees. Each facility is continually monitored and assessed, on an individual basis, to identify ways to make them more energy efficient.

Major County facilities include:

- Courthouse and Administration Building
- Public Safety Building and Field Services
- Jail, Medical Unit, and Work Release Center
- Juvenile Court Services and Detention Facility
- Barber Park
- Expo Idaho
- Solid Waste Management Facilities
- Weed, Pest, and Mosquito Abatement Facility
- Morris Hill Morgue and Storage Facility
- The Justice Center / FACES
- 400 Benjamin: Elections, Vehicle Licensing, Adult Drug Court, Juvenile Programs
- Paramedics Administration and Training Facility
- Paramedics Emergency Medical Stations



Facility Awards and Recognition

Ada County seeks opportunities to raise public awareness about its energy efficient operations and high performance facilities through various awards and certification programs.

ENERGY STAR Awards

Ada County Courthouse & Administration Bldg	Energy Score 76	2004
Ada County Courthouse & Administration Bldg	Energy Score 75	2005
Ada County Courthouse & Administration Bldg	Energy Score 82	2006
Ada County Courthouse & Administration Bldg	Energy Score 82	2007
Ada County Courthouse & Administration Bldg	Energy Score 81	2008
Ada County Courthouse & Administration Bldg	Energy Score 81	2009
Ada County Courthouse & Administration Bldg	Energy Score 81	2010

LEED Certifications

Ada County Courthouse & Administration Bldg	LEED-EB Silver	May 2005
Ada County Development Services Remodel	LEED-CI Certified	March 2006
Ada County Barber Park Headquarters	LEED-NC Certified	October 2006
Ada County Weed, Pest, & Mosquito	LEED-NC Silver	March 2008
Ada County Paramedics Meridian Station	LEED-NC Silver	July 2008
Ada County Civic Plaza Office Complex	LEED-CI Gold	June 2009
Ada County Paramedics Star Station	LEED-NC Gold	May 2010
Ada County Paramedics Administration Bldg	LEED-NC Silver	July 2011 - Pending
<i>EB - Existing Building, NC - New Construction, CI - Commercial Interior</i>		

May in Motion Award

Alternative Transportation Champion	Bronze	2007
Alternative Transportation Champion	Silver	2008
Alternative Transportation Champion	Silver	2009
Alternative Transportation Champion	Silver	2010
Alternative Transportation Champion	Silver	2011

Other Achievements

The City of Boise's EnviroGuard Award		September 2004
The American Institute of Architect's "2008 Award of Citation in Architecture" for Barber Park project, McKibben+Cooper Architects		
The Intermountain Contractor's "2008 Best Green Building Project in Idaho under \$5 million" for the Civic Plaza project, CSHQA Architects		
ASHRAE High Performing Buildings Magazine	10-page article	Summer 2010

Energy Tracking and Reporting

Monthly utility billing information is compiled in Utility Manager software for electricity, natural gas, water, sewer, and trash to establish a baseline of energy use for each buildings. This data is used to identify and prioritize buildings with high utility costs, determine potential energy-saving measures, evaluate future energy and resource use and savings, and assess post-improvement performance of retrofitted buildings.

An Energy Use Index has been developed to measure a facility's energy performance on a per square foot basis. It is used to establish baseline energy consumption and quantify subsequent savings from ECMs. The savings information is then used for marketing the success of the program. Annual energy reports summarizing usage and costs are prepared and included in the annual strategic plan.

Building Assessments

Building assessments are conducted on the County buildings identified in the plan using a variety of resources. Assessments identify specific building-by-building O&M's for maintenance staff implementation. Priority is based on analysis of utility data, County needs, and financial capabilities.

The selection criteria for building assessments include:

- The potential for building energy savings
- An estimate of time and dollars needed to perform the measures
- The availability of time and resources to devote to the project
- The potential of implementing effective ECMs

Assessments include an in-depth analysis of the whole building including the building envelope, lighting and control systems, engineering analysis of mechanical systems such as air flows and equipment operating efficiencies, metered water use and sewer billing, and trash records.

An assessment report includes:

- Recommended ECM's
- An estimated cost for ECM implementation and calculation of ECM simple payback
- Life Cycle Costing optimization where appropriate
- Identification of existing operating efficiencies
- Identification of funding options for measure implementation
- Identification of Operations & Maintenance's (O & M's)
- Recommendation to reduce water consumption and sewer bills
- Recommendation to reduce trash generation volumes

Under the direction of the Energy Specialist, a contract engineer may lead the assessment team along with County staff. An assessment report will be prepared with recommendations for ECM actions for the County's consideration. Life cycle cost analysis will be utilized for ECM assessment to facilitate Ada County in optimizing their return on investment. Proposed ECM's go through a life cycle cost analysis. A 20% IRR (internal rate of return) will be programmed for each project.

Retrofit Objectives

Building retrofits can generate savings that enable the County to purchase new equipment, add new employees, or expand existing programs. In most circumstances, when retrofit objectives are identified in advance, the objectives can be incorporated and completed with other remodeling projects and building additions.

Retrofit projects designed to increase the efficiency of building systems will positively affect concerns that are important to Ada County officials. Concerns such as:

- Building safety
- Comfort and productivity of occupants
- Increased employee productivity
- Reductions in system failures
- Expansion of anticipated life-cycle or intended use
- Reduced maintenance and utility costs